

**FC-128****Surgery of pelvic chondrosarcomas: a review of 285 cases from two institutions**

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Introduction: Treatment of pelvic chondrosarcoma (CS) is a difficult problem for the musculoskeletal oncologist. Aim of this retrospective study was to review the long-term oncologic and functional outcome of surgical management in a large series of patients with pelvic CSs.

Methods: We analyzed 285 patients treated in two institutions between 1975 and 2013: 169 males (61%) and 116 females (39%) with a mean age of 46.8 years (range, 15 to 81 years). There were 124 central CSs (22, 81 and 21 cases grade 1, 2 and 3 respectively), 103 peripheral CSs (54, 47 and 2 cases grade 1, 2 and 3 respectively), 35 dedifferentiated CSs, 4 clear cell CSs, 2 mesenchymal CSs and 3 periosteal CSs, 14 otherwise defined CSs. Tumor involved the iliac wing in 66 cases, iliac wing and sacro-iliac joint in 13 cases, iliac wing and periacetabular bone in 35 cases, anterior arch and periacetabulum in 57 cases, anterior arch only in 33 cases, acetabulum only in 40 cases and the entire hemi-pelvis in 42. Forty-seven patients had an external hemipelvectomy (17%), whereas 238 patients (83%) underwent a limb-salvage procedure: 131 resections without reconstruction and 107 resections with reconstruction. Margins were wide in 192 cases, wide but contaminated in 26 cases, marginal in 45 cases and intralesional in 22 cases.

Results: Survival on Kaplan Meier curve was 73% and 70% at 10 and 15 years respectively. At a mean of 9 years (1 to 32 years), 174 patients (61%) were continuously NED, 24 were NED after treatment of local recurrence (8%), 50 (18%) DWD, 12 (4%) died of other causes and 25 (9%) AWD. In central and peripheral CSs, high-grade tumors correlated with worse survival. Dedifferentiated CS had a significantly worst prognosis ($p < 0.0001$). At multivariate analysis on survival, stage and grade statistically influenced prognosis. Overall incidence of local recurrence was 27.3% (78 patients).

Conclusion: Surgery is the mainstay of treatment for pelvic CS. CSs with acetabular involvement offer challenging technical problems to reliable and lasting reconstruction. There was a significant correlation between histologic grade and survival. New medical treatments need to be investigated for high grade CSs